

PHOTOMETRY OF AN ECLIPSING SYSTEM WITH A WHITE DWARF COMPONENT

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Observations of a very rare system of a white dwarf with an M star eclipsing component that is accessible to Kepler may make this target the cornerstone of its class. We propose to continue 1-min cadence observations of this post-common-envelope object to 1) obtain very precise orbital parameters, 2) study unsolved issues related to the flare activity on the M companion, 3) investigate the evolution and overall distribution of magnetic active regions in any of the components, 4) search for the secondary eclipse that serves to constrain the eccentricity of the system, 5) perform a study and interpretation of the O-C residuals of the 1040 eclipses/year to be obtained with unprecedented precision of 4.5 s/eclipse, and 6) search for pulsations of the WD component.